

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of the claims in this application:

Listing of the Claims:

Claims 1-5 (Cancelled)

6. (Previously Presented) An implant useful in orthopedic surgery comprising at least one assembled bone block and at least one section of flexible material attached to said at least one assembled bone block, said at least one assembled bone block comprising a first segment of cortical bone and a second segment of cortical bone that are shaped to interlock with one another.
7. (Previously Presented) The implant of claim 6, wherein said at least one assembled bone block comprises at least two substantially planar segments, wherein at least one of said at least two substantially planar segments comprises at least one slot defined thereon, and wherein said at least two substantially planar segments are fastened together by sliding said at least one slot over another substantially planar segment.
8. (Previously Presented) The implant of claim 7, wherein said at least one assembled bone block comprises a first substantially planar segment having a first slotted section thereon and a second substantially planar segment having a second slotted section thereon, wherein said first substantially planar segment and said second substantially planar segment are fastened together by sliding the first slotted section into a slot formed by the second slotted section.
9. (Previously Presented) The implant of claim 6, wherein said first segment of cortical bone is demineralized.

10. (Previously Presented) The implant of claim 6, wherein said at least one section of flexible material is selected from the group consisting of ligament, tendon, muscle, dura, pericardium, fascia, peritoneum and demineralized bone.

11. (Previously Presented) A bone-ended graft useful in orthopedic surgery comprising at least one assembled bone block and at least one section of flexible tissue attached to said at least one assembled bone block, said at least one assembled bone block comprising two interconnected segments of allograft or xenograft cortical bone.

12. (Original) The bone-ended graft of claim 11, wherein said flexible tissue comprises soft tissue, dermis, pericardium, fascia, woven soft tissue, urinary bladder membrane, dura mater, demineralized bone, or skeletal muscle.

13. (Original) The bone-ended graft of claim 11, wherein said flexible tissue is dermis.

14. (Previously Presented) The implant of claim 11, wherein said at least one assembled bone block comprises a first substantially planar segment of cortical bone having a first slotted segment thereon and a second substantially planar segment of cortical bone having a second slotted segment thereon, wherein said first and second substantially planar segments are made of bone and comprise a slot longitudinally defined thereon such that said first and second substantially planar segments comprise a slotted section and a body section, and wherein said first and second substantially planar segments are fastened together by sliding the first slotted section into a slot formed by the second slotted section.

15. (Previously Presented) The bone-ended graft of claim 14, wherein said at least one assembled bone block comprises two or more longitudinal fins, and wherein said flexible tissue is attached to said assembled bone block by contact with at least one of said two or more fins.

16. (Previously Presented) The bone-ended graft of claim 11, wherein said at least one assembled bone block is cut to provide a groove sufficient to accommodate a fixation screw.

17. (Previously Presented) The bone-ended graft of claim 11, wherein said at least one assembled bone block is shaped into a dowel.

18. (Previously Presented) The bone-ended graft of claim 11, wherein said at least one assembled bone block is 9mm, 10mm, 11mm, or 12 mm in diameter.

19. (Previously Presented) The bone-ended graft of claim 16, wherein said groove is a radius cut extending the length of the assembled bone block.

20. (Previously Presented) The bone-ended graft of claim 11, wherein said assembled bone block has a thread profile positioned on its surface in the groove.

21. (Previously Presented) The bone-ended graft of claim 11 wherein said flexible tissue has a first end and a second end, and wherein said one or more bone blocks comprise a first assembled bone block attached to said first end and second assembled bone block attached to said second end.

22. (Previously Presented) The bone-ended graft of claim 11 wherein said implant material is attached to said at least one assembled bone block by chemical annealing, chemical adhesive, suturing, pinning to, or wrapping and typing the implant material around the bone ends (and optionally applying a suitable adhesive).

23. (Previously Presented) The bone-ended graft of claim 11 wherein at least one of said at least one assembled bone block comprises two or more longitudinal fins extending from at least one end of said at least one assembled bone block.

24. (Original) The bone-ended graft of claim 23, wherein said at least one section of flexible tissue passes along a first channel between adjacent fins, loops around a far end of the bone-ended graft, and passes back along a second channel between adjacent fins, and attaches to a section of itself to form a loop encircling the bone-ended graft.

25. (Original) The bone-ended graft of claim 23 wherein the processed implant material passes through at least one hole in at least one fin of the bone-ended graft, and attaches to a section of itself to form a loop encircling the bone-ended graft.

26. (Original) The bone-ended graft of claim 23 wherein aid at least one section of material contacts the ends of two or more fins and is secured into place by compression onto said two or more fins.

27. (Previously Presented) The bone-ended graft according to claims 11 further comprising at least one interference screw that is placed alongside said at least one bone-block, wherein when so placed in a hole in a bone in a recipient in need of said bone-ended graft, said screw compresses against an adjacent section of the hole wall, and also compresses said bone-ended graft against other sections of the hole wall.

28. (Previously Presented) An assembled implant, comprising:

- a first matable segment having a first inner mating surface, said first inner mating surface comprising at least one protrusion extending therefrom;
- a second matable segment having a second inner mating surface, said second inner mating surface comprising at least one hole formed thereon to receive the at least one protrusion on said first inner mating surface; and
- a length of flexible material placed between the inner mating surfaces of the first and the second segments, such that when the first and second segments are joined so the at least one hole receives the at least one protrusion, said length of flexible material is compressed or held therebetween.

29. (Previously Presented) The assembled implant of claim 28, wherein the first inner mating surface and the second inner mating surface are substantially flat.

30. (Previously Presented) The assembled implant of claim 28, wherein said first matable segment and said second matable segment are semi-conical shaped and comprise an exterior surface with threads defined thereon, wherein when said first and second segments are brought together, said threads are aligned.

31. (Currently Amended) The assembled implant of claim 28, wherein said at least one protrusion comprises a pin.

32. (Previously Presented) The assembled implant of claim 28, wherein said inner mating surface of said first segment, second segment or both comprises, teeth, ridges, grooves or another irregular shape to prevent slippage of aid flexible material out of said assemblable fixation plug when assembled.

33. (Previously Presented) The assembled implant of claim 32, additionally comprising an aperture formed on at least one end to receive a driving tool.

34. (Previously Presented) The assembled implant of claim 28, additionally comprising a depression in one or both of the inner mating surfaces, and a thickened section of flexible material positioned in said depression, whereby upon tightening of the first and second segments, the thickened section is retained in said depression and is restricted from sliding out of the assembled implant.

35. (Previously Presented) The assembled implant of claim 28, wherein said first matable segment and said second matable segment are comprised of allograft or xenograft mineralized bone, demineralized bone or a combination thereof; and said length of flexible material is comprised of soft tissue selected from the group consisting of ligament, tendon, muscle, dura, pericardium, fascia, peritoneum and demineralized bone.

Claims 36-63 (Cancelled)

64. (Previously Presented) A dermis derived bone-ended graft useful in orthopedic surgery comprising at least one assembled bone block and an elongated section of processed dermis attached to said at least one bone block.

65. (Previously Presented) The graft of claim 64, wherein at least one of the at least one assembled bone block is comprised of cortical, cancellous, cortico-cancellous, or demineralized bone, obtained from human or xenograft sources, optionally in combination with the synthetic material.

66. (Previously Presented) The graft of claim 65, wherein at least one of the at least one assembled bone block is comprised of two segments.

67. (Previously Presented) The graft of claim 66, wherein said two segments are in the shape of disks.

68. (Previously Presented) A soft tissue implant for spanning two or more vertebrae, or for spanning a bone fracture site, comprising:

- a. a middle section capable of flexion and having a first end and an opposing second end;
- b. a top section attached to the first end of said middle section and comprising a first assembled bone block having at least one aperture for attaching to a first vertebrae or to a section of bone on a first side of a fracture, said first assembled bone block comprising two segments of cortical bone; and
- c. a contiguous bottom section attached to the second end of said middle section and comprising a second assembled bone block having at least one aperture for attaching to a second vertebrae or to a section of bone on an opposing side of a fracture, said second assembled bone block comprising two segments of cortical bone.

69. (Previously Presented) The soft tissue implant of claim 68, wherein said middle section comprises dermis, fascia, pericardium, woven soft tissue, urinary bladder matrix, peritoneum, or demineralized bone.

70. (Previously Presented) The soft tissue implant of claim 68, wherein said the first end and the second end of said middle section are calcified.

71. (Previously Presented) The soft tissue implant of claim 68, wherein said top section and said bottom section comprise allograft bone.

72. (Previously Presented) The soft tissue implant of claim 68, wherein said top section and said bottom section comprise xenograft bone.

73. (Previously Presented) An implant for use as a tension band between vertebrae in a patient in need thereof, comprising a longitudinal device having a top section, a bottom section, and a middle section, the middle section being flexible, wherein the top and the bottom sections each comprise an assembled bone block having a plurality of holes that facilitate attachment to a corresponding vertebrae.

74. (Previously Presented) The implant of claim 73, wherein said middle section is fabricated from a material selected from the group consisting of segmentally demineralized bone, fascia, pericardium, ligament, tendon, muscle, dura, xenograft demineralized bone, xenograft segmentally demineralized bone and a combination thereof.